

REMARKS

By this Office Action, the Examiner has required restriction to one of the following inventions:

I. Claims 20-26, drawn to ONE isolated nucleic acid, a vector thereof, and cultured cell, classified in class 536, subclass 23.1; class 435, subclasses 69.1, 320.1, 325.

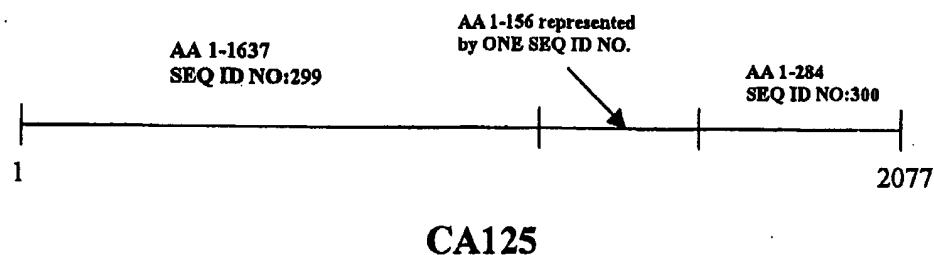
(Upon election of Group I above, Applicant must further elect ONE nucleic acid from those listed in Claim 20, part a, and ONE corresponding encoded polypeptide from those listed in Claim 21, part a, as each sequence represents a separate invention, not a species. Additionally, Claim 26 will only be examined to the extent it reads on the elected sequence(s).)

II. Claims 14-19, 27, 30-33 drawn to ONE purified polypeptide, classified in class 530, subclass 350; class 424, subclass 184.1.

(Upon election of Group II above, Applicant must further elect ONE polypeptide sequence from those listed in Claim 27, part a, as each sequence represents a separate invention, not a species. Claims 14-19 will only be examined to the extent they read on the elected sequence.)

III. Claims 1-12, drawn to ONE CA125 molecule comprising an extracellular domain of SEQ ID NO.: 299, ONE repeat domain, and ONE cytoplasmic domain comprising SEQ ID NO.: 300, classified in class 530, subclass 350.

(Upon election of Group III, Applicant must further elect ONE multiple repeat domain corresponding to ONE linear sequence identifier comprising amino acids 1-156 of domains 1-5. For example, upon election, of Group III, a search and examination of a 2077 AA polypeptide will take place as set forth below:



IV. Claim 13, drawn to a CA125 molecule comprising SEQ ID NO.: 162, classified in class 530, subclass 350.

V. Claims 28-29 drawn to a purified antibody that binds to ONE polypeptide, classified in class 530, subclass 387.1.

(Upon election of Group V above, Applicant must further elect ONE polypeptide sequence from those listed in Claim 28, part a, as each sequence represents a separate invention, not a species.)

VI. Claim 34, drawn to ONE antisense molecule, classified in class 800, subclass 286.

(Upon election of Group VI above, Applicant must further elect ONE nucleic acid from those listed in Claim 20, part a, as each sequence represents a separate invention, not a species.)

Responsive to the Requirement for restriction, Applicant elects to prosecute the invention of group III, with traverse Claims 1-12 drawn to one polypeptide. The applicant elects the repeat domain as shown in SEQ ID NO. 150 for examination.

Applicants respectfully request reconsideration of the Requirement for Restriction, or in the alternative, modification of the Restriction Requirement to allow prosecution of more than one group of Claims designated by the Examiner in the present Application, for the reasons provided as follows.

Under 35 U.S.C § 121 “two or more independent and distinct inventions . . . in one Application may . . . be restricted to one of the inventions.” Inventions are “independent” if “there is no disclosed relationship between the two or more subjects disclosed” (MPEP 802.01).

The term “distinct” means that “two or more subjects as disclosed are related . . . but are capable of separate manufacture, use or sale as claimed, AND ARE PATENTABLE OVER EACH OTHER” (MPEP 802.01) (emphasis in original). However, even with patentably distinct inventions, restriction is not required unless one of the following reasons appear (MPEP 808.02):

1. Separate classification
2. Separate status in the art; or
3. Different field of search.

Further, under patent Office Examining Procedures, “[i]f the Search and Examination of an entire Application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to distinct or independent inventions” (MPEP 803, Rev. 8, May 1988) (emphasis added).

The Examiner’s assertions to the contrary notwithstanding, Applicants respectfully submit that conjoint examination and inclusion of all of the Clams of the present Application would not present an undue burden on the Examiner, and accordingly, withdrawal of the Requirement for Restriction.

With respect to the requirement to elect a single species for examination on the merits, Applicants respectfully traverse this requirement for the following reasons:

I. Claim 1(b) providing the multiple repeat domains does not include a genus species relationship

Claim 1(b) relates to a multiple repeat domain. A CA125 molecule can include a variety, if not all of the repeats in a single molecule. SEQ ID NO: 162 which show the recombinant molecule has been marked up as Appendix Tab A, to show the multiple repeats present in a single molecule. Claims to be restricted to different species must be mutually exclusive. The general test as to when claims are restricted respectively to different species is the fact that one claim recites limitations which under the disclosure are found in a first species, but not in a second, while a second claim recites limitations disclosed only from the second species and not the first. MPEP § 12.0[3[c]. As can be seen from an inspection of the recombinant molecule shown in SEQ ID NO: 162, CA125 molecule within the scope of claim 1(b) may have multiple

repeat domains which are not mutually exclusive. Consequently, Applicants respectfully request examination on the multiple repeat domains as claimed. This requirement to elect a single combination of repeats violates the basic right of the Applicants to claim his invention as he chooses. In re Weber, 580 F.2d 455 (USCC 1978).

II. Restriction is not appropriate if the claims are directed to substantially the same molecule

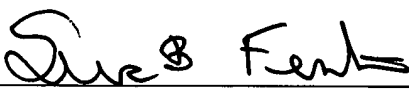
Species are patentably distinct when they are related, but they are capable of separate manufacture and are patentable (novel and nonobvious) over each other. The multiple repeat domains contain multiple repeats wherein each repeat unit has five genomic exons. The variation in repeats set out in Claim 1 (b) are 82% identical and thus present related chemical compounds. The repeat domain is a sequence of 156 amino acids which are repeated multiple times within a discrete portion of the CA125 protein. The repeat domain has its own function and combines with the other domains to provide the overall function of the protein. The designated exons in the repeat domain can vary, but, this variance is minimal. Importantly, when the nucleic acids are expressed they form a CA125 protein. Restriction is not appropriate if claims are directed to the same protein.

In view of the above, withdrawal of the Requirement for the Restriction is requested, and an early action on the merits of the Claims is courteously solicited.

Respectfully Submitted,


BUTLER, SNOW, O'MARA,
STEVENS & CANNADA

Date: 9-9-05

By: 
Susan B. Fentress
Registration No. 31,327
6075 Poplar Avenue, Suite 500
Memphis, TN 38187
Telephone: 901-680-7319

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, on 9/9/2005, in a package addressed to: Mail Stop: AMENDMENT Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


JIM MONTGOMERY

MEMPHIS 171783v1

multiple report domain

164
 A TVPFMVFFTL NFIITNLQYE EDMRHPGSRK
 12101 FNATERELQG ILKPLFRNSS LEYLYSGCRL ASLHPEKDSS AMAVDAICTH
 12151 RPDPEDLGLD RERLYWELSN LTNGIQELGP YTLDRNSLYV NQFTHRSSMP
 12201 TTSTPGTSTV DVGTSCTPSS SPSPTA [REDACTED]
 12251 [REDACTED]
 12301 [REDACTED]
 12351 [REDACTED] TMSAGPLL PFTLNFTITN
 12401 LQYGEDMGHP GSRKFNTTER VLOGILGPIF KNTSVGPLYG GCRLTSLRSE
 12451 KDGAATGVDA ICIHHLDPKS PGLNRERLYW ELSQLTNGIK ELGPYTLDNR
 12501 SLYVNCFTHR TSVPTSSTPG TSTVDLGTSG TPFSLPSPAT [REDACTED]
 12551 [REDACTED] EDMRHPGSRK ENTTERVLOT LEGMERNYS VGLYSGCRL
 12601 [REDACTED] REOLYNPHSO LTNGIKELGP
 12651 [REDACTED] TMSAGPLL
 12701 VPFTLNFTIT NLQYEEDMHG PGSRKFNTTE RVLOGILGPM FKNTSVGLLY
 12751 SGCRLTLLRS EKDGAATGVD AICTHRLDPK SPGVDRQLY WELSQLTNGI
 12801 KELGPYTLDNR NSLYVNCFTH QTSAPNTSTP GTSTVDLGTS GTPSSLPSPAT
 12851 [REDACTED] KENTTERVLOT ILKPLFRNSS
 12901 [REDACTED] DRGOLYNPHSO
 12951 [REDACTED] TSTVDLGTSG
 13001 [REDACTED] SAGP LLVPFTLNFT ITNLQYEEDM HHGSRKFNT TERVLOGILG
 13051 PMFKNTSVGL LYSGCRLTLL HPEKNGAATC MDAICSHRLD PKSPGLNREQ
 13101 LYWELSQLTH GIKELGPYTL DRNSLYVNCFT THRSSVAPTS TPGTSTVDLG
 13151 TSGTPSSLPSPAT [REDACTED] EDMRHPGSRK ENTTERVLOT
 13201 [REDACTED] GTHHNLPHSO
 13251 [REDACTED]
 13301 [REDACTED] GPLLVPFTLN FTITNLQYEE DMHRHPGSRKE
 13351 NATERVLOGIL LSPIFKNSSV GPLYSGCRLT SLHPEKDGA TGMDAVCLYH
 13401 PNPKRPGLDNR EQLYWELSQL THNITELGPY SLDRDSLYVN GTHONSVPT
 13451 TSTPGTSTVY WATTGTPSSF PGHTPGPLL IPFTFNFTIT NLHYEENMOH

13501 PGSRKFNTE RVLOGILKPL FKNTSVGPLY SGCRLTSLRP EKDGAATGMD ²⁰⁰
 13551 AVCLYHPNPK RPGLDREQLY CELSQLTHNI TELGPYSLDR DSVLYVNGFTH ²²⁸
 13601 QNSVPTTSTP GTSTVYWATT GTPSSFPGHT EPGPLLIFFT FNFTITNLHY ²⁰⁵ ²⁸⁰ ¹⁸⁶
 13651 EENMQHPGSR KFNTERVLQ GILKPLEKNT SVGPLYSGCR LTLRLPEKHE ¹⁹⁷
 13701 AATGVDICT HRVDPIGPGL DRERLYWELS QLTNSITELG PYTLDRDSLY ²⁴⁴
 13751 VNGFNPRSSV PTTSTPGTST VHLATSGTPS SLPGHAPVP ILITPTLNET ²⁷¹ ²⁸⁷
 13801 ITNLHYEENM QHPGSRKFNTERVLOGILK PLFKNTSVGP LYSGCRLTL ¹⁸⁸ ¹⁹⁷
 13851 RPEKHEAATG VDTICTHRVD PIGPGLDREX LYWELSXLTX XIXELGPYXL ²
 13901 DRXSLYVNGF XXXXXXXXTS TPGTSXVXLX TSGTPXXXPX XISAGPLLVP ²
 13951 FTLNFTITNL QYEEDMHHPG SRKFNTERV LOGILGPMFK NTSVGLLYSG ¹⁸³ ²⁰²
 14001 CALTLLEPEK EKDGAATGMD HRERLYWELS CELSQLTHNI ²⁴¹
 14051 LGPYTLDRNS LYVNGFTHRS SVAPTSTPGT STVOLGTSGT PSSLPSPITA ²⁵⁰ ²⁸³
 14101 VPLLVPFTLN FTITNLQYGE DMRHGSRKF NTTERVLQGL LGPLFKNSSV ¹⁴⁵
 14151 GPLYSGCRLI SLRSEKDGA TGVDAICTHH LNPQSPGLDR EQLYWOLSOM ²⁰⁵ ²³⁸
 14201 TNGIKELGPY TLDNRSLYVN GFTHRSSGLT TSTPWTSTVD LGTSGTPSPV ²⁵⁷ ²⁸⁵
 14251 PSPTTAGPLL VFTLNFTIT NLQYEEDMHR PGSRKFNATE RVLOGILSPI ¹⁷⁷
 14301 FKNSSVGPLY SGCRLTSLRP EKDGAATGMD AVCLYHPNPK RPGLDREQLY ²⁰⁷ ²²⁷
 14351 WELSQLTHNI TELGPYSLDR DSVLYVNGFTH QSSMTTTRTP DTSTMHLATS ²⁰⁰
 14401 RTPASLSGPT TASPLLVLFT INCTITNLQY EEDMRRTGSR KFNTEMESVLQ ²⁸⁹ ¹⁷²
 14451 GILKPLEKNT SVGPLYSGCR LTLRLPKKDG AATGVDAICT HRLDPKSPGL ¹⁹⁷ ²²⁴
 14501 NREQLYWELS KLTNDIEELG PYTLDRNSLY VNGFTHQSSV STTSTPGTST ²⁶²
 14551 VOLRTSGTPS SLSSPTIMXX XPLLXPFTLN FTITNLXYEE XMXXPGSRKF ²⁷⁹ ²
 14601 NTTERVLQGL LRPLFKNTSV SSLYSGCRLT LLRPEKDGA TRVDAACTYR ²¹⁰
 14651 PDPKSPGLDR EQLYWELSQL THSTTELGPY THRVSTLYVN TPNPKNSVLT ²²⁹ ²⁷¹
 14701 TSTPGTSTVH LATSGTPSSL PGHTXXXPLL XPFTLNFTIT NLXYEEXMXX ²⁸⁷ ²
 14751 PGSRKFNTE RVLOGILKPL FRNSSLEYLY SGCRLASLRP EKDSSAMAVD ¹⁹⁵
 14801 AICTHRPDPE DLGLDRERLY WELSNLTNGI QELGPYTLDR NSLYVNGFTH ²²²
 14851 RSSFLTSTP WTSTVDLGTS GTPSPVPSPT TAGPLLVPFT LNFTITNLQY ²⁵⁹ ²⁸⁵

16351 ²NGAATGMDAT CTHRLDPKSP ²GLDREXLYWE ²LSXLTXXIXE ²LGPYXLDKXS
 16401 ²LYVNG ²XXXX ²XXXXTST ²PGT ²SVXLATSGT ²PXXXPPX ²TX ²XPLLXPFTLN
 16451 ²FTITNLXYE ²XXXXPGSRKF ²NTTERVLQGL ²LKPLFRNSSL ¹⁹⁵EYLYSGCRLA
 16501 ²²²SLP ²²²PEKDSSA ²²²MAVDAICTHR ²²²PDPEDLGLDR ²²²ERLYWELSNL ²²²TNGIQELGPY
 16551 ²⁵⁰TLDNRSLYVN ²⁵⁰G ²⁵⁰THRSSMPT ²⁵⁰TST ²⁵⁰PGTSTVD ²⁵⁰VGTSCTPSSS ²⁵⁰PSPT ²⁵⁰IAGPLL
 16601 ¹⁷⁴IPFTLNFTIT ¹⁷⁴NLQYGEDMGH ¹⁷⁴PGSRKFNTTE ¹⁷⁴RVLOGL ¹⁷⁴LCPI ¹⁷⁴FKNTSVGPLY
 16651 ²³⁴SGCRLTSLR ²³⁴EKDGAATGVD ²³⁴AICIHHLDPK ²³⁴SPGLNRERLY ²³⁴WELSQLTNGI
 16701 ²⁵³KELGPYTLDR ²⁵³NSLYVNG ²⁵³PTH ²⁵³RTSVPTTST ²⁵³GTSTVDLGTS ²⁵³GTFPSLPSA
 16751 ¹⁷⁰TAGPLLVLFT ¹⁷⁰LNFTITNLKY ¹⁷⁰EEDMHRPGSR ¹⁷⁰KFNTTERVLQ ¹⁷⁰TILGPMFKNT
 16801 ²⁰²SVGLLYSGCR ²⁰²LTLR ²⁰²SEKDG ²⁰²AATGVDAICT ²⁰²HRLDPKSPGL ²⁰²DREXLYWELS
 16851 ²XLTXIXELG ²PYXLDXSLY ²VNG ²XXXXXXX ²XTST ²PGTSX ²VXLXTSGTPX
 16901 ²XXPXX ²XXXP ²LLXPFTLNFT ²ITNLXYEEXM ²XXPGSRKFNT ²TERVLQGLR
 16951 ²¹⁵PVFKNTSVGP ²¹⁵LYSGCRLTLL ²¹⁵RPKKDGAATK ²¹⁵VDAICTYRPD ²¹⁵PKSPGLDREQ
 17001 ²⁶¹LYWELSQLTH ²⁶¹SITELGPYTQ ²⁶¹DRDSLYVNG ²⁶¹PTH ²⁶¹THRSSVPTTS ²⁶¹IPGTSAVHLE
 17051 ²⁹¹TTGTPSSFPG ²⁹¹HTEPGPLLIP ²⁹¹FTFNETITNL ²⁹¹RYEENMQHPG ²⁹¹SRKFNTTERV
 17101 ²¹⁸LQGL ²¹⁸LTPLEK ²¹⁸NTSVGPLYSG ²¹⁸CRLTLLR ²¹⁸PEK ²¹⁸QEAATGVDTI ²¹⁸CTHRVDPIGP
 17151 ²⁴⁰GLDRERLYWE ²⁴⁰LSQLTNSITE ²⁴⁰LGPYTLDRS ²⁴⁰LYVDG ²⁴⁰FNPS ²⁴⁰SVPTTST ²⁴⁰PGT
 17201 ²⁸⁸STVHLATSGT ²⁸⁸PSPLPGHTAP ²⁸⁸VPLLIPFTLN ²⁸⁸FTITDLHYEE ²⁸⁸NMQHPGSRKF
 17251 ¹⁹⁸NTTERVLQGL ¹⁹⁸LKPLFKSTSV ¹⁹⁸GPLYSGCRLT ¹⁹⁸LLR ¹⁹⁸PEKHGAA ¹⁹⁸TGVDAICTLR
 17301 ²⁴³LDPTGPGLDR ²⁴³ERLYWELSQL ²⁴³TNSITELGPY ²⁴³TLDRDSLYVN ²⁴³GFNPWSSVPT
 17351 ²⁸⁷TST ²⁸⁷PGTSTVH ²⁸⁷LATSGTPSSL ²⁸⁷PGHT ²⁸⁷IAGPLL ²⁸⁷VPFTLNFTIT ²⁸⁷NLKYEEDMHC
 17401 ²⁰³PGSRKFNTTE ²⁰³RVLOS ²⁰³HGPM ²⁰³FKNTSVGPLY ²⁰³SGCRLTLLR ²⁰³EKDGAATGVD
 17451 ²AICTHRLDPK ²SPGLDREXLY ²WELSLTXXI ²XELGPYXLD ²XSLYVNG ²FX
 17501 ²XXXXXTST ²PGT ²SVXLATSGT ²GTPXXXPPXT ²XXXPLLXPFT ²LNFTITNLXY
 17551 ²EEXMXXPGSR ²KFNTTERVLQ ²G ²LXPXFKXT ²SVGXLYSGCR ²LTLR ²PEKXX
 17601 ²AATXVDXXCX ²XXDPXXPGL ²DREXLYWELS ²XLTNSITELG ²PYTLDRDSLY
 17651 ²⁵¹VNG ²⁵¹THRSSM ²⁵¹PTTS ²⁵¹PGTSA ²⁵¹VHLETSGTPA ²⁵¹SLPGHT ²⁵¹APGP ²⁵¹LLVPFTLNFT
 17701 ¹⁶⁸ITNLQYEEDM ¹⁶⁸RHPGSRKFNT ¹⁶⁸TERVLQGL ¹⁶⁸PK ¹⁶⁸PLFKSTSVGP ¹⁶⁸LYSGCRLTLL

17751 RPEKRGAAATG VDTICTHRLD PLNPGLDREX LYWELSXLTX XIXELGPYXL
 17801 DRXSLYVNGF XXXXXXXXTS TPGTSXVXLX TSGTPXXXPX XTXXXPLLXP
 17851 FTLNFTITNL XYEEXMXXPG SRKFNTTERTV LQGLLXPXFK XTSVGLYSG
 17901 CRLTLLEK XAATXVDXX CXXXDPXXP GLDREXLYWE LSXLTXIXE
 17951 LGPYXLDXRS LYVNGFPRS SVPTTSTPGT STVHLATSGT PSSLPGHTAP
 18001 VPLLIPFTLN FTITNLHYEE NMQHPSGRKF NTTERVLOGL LGPMFKNTSV
 18051 GLLYSGCRLT LLPEKNGAA TGMDAICSHR LDPKSPGLDR EXLYWELSXL
 18101 TXXIXELGPY XLDXSLYVN FXXXXXXX TSTPGTSXVX LXTSGTPXXX
 18151 PXXTXXXPLL XPFTLNFTIT NLXYEEXMXX PGSRKFNTE RVLOGILXPX
 18201 FKXTSVGLY SGCRLTLLEK EAXAATXVD XCCXXXDPX XPGLDREXLY
 18251 WELSXLTXI XELGPYXLDX XSLYVNGFTH QNSVPTTSTP GTSTVYWATT
 18301 GTPSSFPGHT EPGPLLIPFT FNFTITNLHY EENMQHPSGR KFNTTERVLO
 18351 GILTLPLFKNT SVGPLYSGCR LTLLEKQE AATGVDICT HRVDPIGPGL
 18401 DREXLYWELS XLTXIXELG PYXLDXSLY VNGFXXXXXX XXTSTPGTSX
 18451 VXLXTSGTPX XXPXTXXXP LLXPFTLNFT ITNLXYEEXM XXPGRKFNT
 18501 TERVLOGILX PFKXTSVGLY LYSGCRLTL EKEAXAATX VDXCCXXXD
 18551 PXXPGLDREX LYWELSXLTX XIXELGPYXL DRXSLYVNGF THRSVPTTS
 18601 SPTSTVHLA TSGTPSSLPG HTAPVPLLIP FTLNFTITNL HYEENMQHPG
 18651 SRKFNTTERTV LQGLLKPFLK STSVGPLYSG CRLTLLEK HGAATGVDAI
 18701 CTRLDPTGP GLDREXLYWE LSXLTXIXE LGPYXLDXRS LYVNGFXXXX
 18751 XXXXTSTPGT SXVXLXTSGT PXXXPXTXX XPLLXPFTLN FTITNLXYEE
 18801 XMXPGSRKF NTTERVLOGL LXPXFKXTSV GLLYSGCRLT LLPEKXXAA
 18851 TXVDXCCXXX XDPXXPGLDR EXLYWELSXL TXXIXELGPY XLDXSLYVN
 18901 FTHRTSVPT TSTPGTSTVH LATSGTPSSL PGHTAPVPLL IPFTLNFTIT
 18951 NLQYEDMHR PGSRKFNTE RVLOGILSPI FKNSSVGPLY SGCRLTSLRP
 19001 EKDGAATGMD AVCLYHPNPK RPLDREQLY CELSQLTHNI TELGPYSLDR
 19051 DSLYVNGFTH QNSVPTTSTP GTSTVYWATT GTPSSFPGHT XXXPLLXPFT
 19101 LNFTITNLXY EEXMXXPSGR KFNTTERVLO GILXPXFKXT SVGLYSGCR
 19151 LTLLEKXX AATXVDXXCX XXXDPXXPGL DREXLYWELS XLTXIXELG

19201 PYXLDRXS LY VNG²⁶⁹ETHWSSG LTTST²⁸⁵PWTST VDLGTSGTPS PVPSP²ITAGP
 19251 LLVPFTLNFT ITNLQYEEDM HRPGRKFN T¹⁷⁷ERVLOG²ILS PIFKNTSVGP
 19301²⁰⁸ LYSGCRLTLL R²PEKQEAATG VDTICTHRVD PIGPGLDREX LYWELSXLTX
 19351 XIXELGPYXL DRXS LYVNG²XXXXXXTS T²PGTSXVXLX⁷ TSGTPXXXPX
 19401 X²TXXP²LLXP FTLNFTITNL XYEEXMXXPG SRKFNTT²ERV LOG²ILXPXFK
 19451 XTSVGXLYSG CRLTLLR²KEK XXAATXVDXX CXXXXDPXXP GLDREXLYWE
 19501 LSXLTXIXE LGPYXLDRXS LYVNG²⁵⁸ETHRS FGLTTS²⁸⁵PWT STVDLGTSGT
 19551 PSPVPSP²¹⁹ITA GPLLVPFTLN FTITNLQYEE DMHRPGSRKF NTTERVLOG²IL
 19601 LTPLFRNTSV S²SLYSGCRLT LL²RPEKDGA TRVDAVCTHR PDPKSPGLDR
 19651 EXLYWELSXL TXIXELGPY XLDRXS LYVN²QFXXXXXXX TST²PGTSXVX
 19701 LXTSGTPXXX PXX²TXXXPLL XPFTLNFTIT NLXYEEXMXX PGSRKFNTE
 19751 RVLOG²ILXPX FKXTSVGXLY SGCRLTLLR² EKXXAATXVD XXCXXXXDPX
 19801 XPGLDREXLY WELSXLTXI XELGPYXLDR XSLYVNG²⁶⁷ETH WIPVPTSST²P
 19851²⁸¹ GTSTVDLGSG TPSSLPSP¹⁷⁵T AGPLLVFTL NFTITNLQYG EDMGHPGSRK
 19901 FNTTERVLOG²⁰¹ ILGPIFKNTS VGPLYSGCRL TSLR²PEKDGA ATGVDAICIH
 19951 HLDPKSPGLD REXLYWELSX LTXXIXELGP YXLDRXS LYV²NGFXXXXXXX
 20001 XTST⁷PGTSXV XLXTSGTPXX XPXX²TXXXPL LXPFTLNFTI² TNLXYEEXMX
 20051 XPGSRKFNTT ERVLOG⁷ILXP XFKXTSVGXL YSGCRLTLLR² KEKXXAATXV
 20101 DXXCXXXXDP XXPGLDREXLY WELSXLTX IXELGPYXLD RXSLYVNG²FT
 20151²⁶⁴ HQTFAPNTST²⁸³ PGTSTVDLGT SGTPSSLPSP T²⁰²SAGPLLVPF TLNFTITNLQ
 20201 YEEDMHH¹⁸³PGS RKFNTT²ERV LQGI²LGPMFKN TSVGLLYSGC RLTL²LRPEKN
 20251 GAATRVDAVC THRPDPKSPG LDREXLYWEL SXLTXXIXEL GPYXLDRXSL
 20301 YVNG²FXXXXX XXXTST²PGTS XVXLXTSGTP XXXPXX²TAPV PLLIPFTLNF
 20351¹⁸⁸ TITNLHYEEN MQHPGSRKFNT TTERVLOG²¹³IL RPLFKSTSVG PLYSGCRLTL
 20401 L²⁴²RPEKHGAAT GVDAICTLRL DPTGPGLDRE RLYWELSOLT NSVTELGPYT
 20451 LDRDSLYVNG²⁷³ FTQRSSVPTT SIP²⁹⁰GTSAVHL ETSGTPASLP GHT²APGPLL
 20501¹⁶⁹ PFTLNFTITN LQYEVDMRHP GSRKFNTT¹⁹⁸ER VLQGI²³⁹ILKPLF KSTSVGPLY
 20551 GCRLTLLR²PE KRGAAATGVDT ICTHRLDPLN PGLDREQLYW ELSKLTRGII

20601 ELGPYLLDRG SLYVNG²⁰⁰FTHR NFPITST²⁹²PG TSTVHLGTSE TPSSLPRP¹
 20651 PGPLLVPFTL¹⁶⁰ NFTITNLQYE EAMRHGSRK FNTT²¹²ERVLOG LRPLEFKNTS
 20701 IGPLYSSCRL²¹² TLLR²⁴⁷PEKDKA ATRVDAICTH HPDPQSPGLN REQLYWELSO
 20751 LTHGITELGP YTLDRDSL²⁰⁸YV DQ²FTHWSP²⁹³IP TTSTPGTSIV NLGTSGIPPS
 20801 LPETT¹⁹⁸XXXPL LXPFTLNFTI TNLYEEXMX XPGSRKFNTT ERVLOGIL²³³LKP
 20851 LFKSTSVG¹⁹⁸PL YSGCRLTL²⁷⁴LR PEKDG²VATRV DAICTHRPDP KIPGLDRQOL
 20901 YWELSQLTHS ITELGPYTLD RDSL²⁹⁴YVNGFT QRSSVPTTST¹⁸¹ PGFTTVQPET
 20951 SETPSSLP²²⁰GP TATGPVLLPF TLNFTITNLQ²³² YEEDMHRPGS RKFNTT²⁰⁰ERV
 21001 QGIL²⁸⁹LMPLFKN TSVSSLYSGC RLTL²¹⁵LRPEKD GAATRVDAVC THRPDPKSPG
 21051 LDRERLYWKL²³¹ SOLTHGITEL GPYTLD²⁷⁵RHSL YVNGFTHOSS MTTTRTPDTS
 21101 TMHLATSRT²⁹⁵P ASLSGPT¹⁹⁰IAS PLLVLTINF TITNLRYEEN MHRPGSRKFN
 21151 TTERVLOGIL²¹⁶ RPVFKNTSVG PLYSGCRLTL L²²⁵PKKDGAAAT KVDAICTYRP
 21201 DPKSPGLDRE QLYWELSQLT HSITELGPYT QDRDSL²⁵⁵YNVG FTQRSSVPTT
 21251 SV²⁹⁰PGTPTVDL GTSGTPVSKP GPSAASPLLV LFTLNGTITN LRYEENMQHP
 21301 GSRKFNTTER VLOGIL²²⁵LRSLF KSTSVGPLY²¹¹S GCRLTL²²⁰LRPE KDGTATGVDA
 21351 ICTHHPDPKS PRLDREQLYW ELSQLTHNIT ELGHYALDND SLFVNG²⁵⁴FTHR
 21401 SSVSTTST²⁹⁰PG TPTVYLGASK TPASIFGPSA ASHLLILFTL¹⁹² NFTITNLRYE
 21451 ENMWPGSRKF NTTERVLOGL²¹¹ LRPLEFKNTSV GPLYSGSRLT L²²⁰LRPEKDGEA
 21501 TG²⁵⁴VDAICTHR PDPTGPG¹⁹³LDR EQLYLELSQL THSITELGPY TLD²⁰⁹RDSL²⁴⁸YVN
 21551 G²⁵⁴FTHRSSVPT TS¹⁹³GVVSEEP FTLNFTINNL RYMADMGQPG SLKF²⁷⁰NITDNV
 21601 MKHIL²⁹⁷LSPLFQ RSSLGARYTG CRVIAL¹⁹⁴FSVK NGAETRVDLL CTYLQPLSGP
 21651 GLPIKQVFHE LSQOTHG²²¹ITR LGPYSLDKDS LYLNGYNEPG LDEPPT²⁴⁹PKP
 21701 ATT²⁹⁷ELPPLSE ATT²²¹AMGYHLK TLTLNFTISN LQYSPDMGKG SATFNSTEGV
 21751 LQHL²⁴⁹LRPLFQ KSSMGPFYLG CQLISL²⁹⁸LRPEK DGAATGVDTT CTYHPDPVGP
 21801 GLDIQOLYWE LSQ²⁹⁸THGVTQ LGFYVLDRDS LFINGYAPQN LSIRGEY²⁹⁸IN
 21851 FHIVNWNLSN PDPTSSEY

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.